

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1           1. (currently amended): A device for data communication between a first host  
2 device or a further host device and at least one client device on a shared transmission path  
3 having:

4           [[~~-~~     ]] a first host device (~~1~~), which includes a host application (~~11~~);  
5           [[~~-~~     ]] at least one further host device (~~2~~), which includes a host application  
6 (~~21~~);

7           [[~~-~~     ]] at least one client device (~~3, 4, 5, 6, 7~~), which includes a client  
8 application (~~34, 44, 54, 64, 74~~);

9           wherein

10          [[~~-~~     ]] a bus control module (~~8~~) is provided;  
11          the transmission path is implemented as a data bus representing a ring connector;  
12          [[~~-~~     ]] the host devices (~~1,2~~) and the client device(s) (~~3, 4, 5, 6, 7~~), as well as  
13 the bus control module (~~8~~), ~~being~~ are connected to one another by the ~~transmission path~~ (~~9~~) data  
14 bus for exchanging data and/or signals with one another and  
15          [[~~-~~     ]] the bus control module (~~8~~) being implemented to control the access of  
16 the host devices (~~1,2~~) to the ~~transmission path~~ (~~9~~) data bus.

1           2. (currently amended): The device according to Claim 1, wherein  
2           characterized in that  
3           the host applications of the first and/or the further host devices (~~1, 2~~), ~~in particular~~  
4 ~~the host application~~ (~~11, 12~~), have a processor.

3. (canceled)

1           4. (currently amended): The device according to Claim 1, ~~characterized in that~~  
2 wherein the host devices (1, 2) each have a master application interface module (10, 20), which  
3 is linked in the transmission path ~~(9)~~.

1           5. (currently amended): The device according to Claim 4, wherein  
2 ~~characterized in that~~  
3 the host devices (1, 2) each have a master application module (14, 24), which  
4 connects the particular host application (11, 21) to the assigned master application interface  
5 module (10, 20).

1           6. (currently amended): The device according to Claim 1, ~~characterized in that~~  
2 wherein each client device (3, 4, 5, 6, 7) has a client application interface module (30, 40, 50, 60,  
3 70), which is linked in the transmission path (9) and is connected to the assigned client  
4 application (34, 44, 54, 64, 74).

1           7. (currently amended): A method of data communication between a first host  
2 device or a further host device and at least one client device on a shared transmission path  
3 implemented as a data bus representing a ring connection, having the following steps:

4           [[ -     ]] opening a communication connection between a host application  
5 running on the host device and a client application running on the client device;

6           [[ -     ]] transmitting arbitration information on the ~~transmission path~~ data bus  
7 along the opened communication connection, the arbitration information containing data, on the  
8 basis of which the ~~transmission path~~ data bus is reserved for a predetermined time interval or for  
9 a predetermined data volume for a subsequent data transmission on the ~~transmission path~~ data  
10 bus along the opened communication connection;

11                    [[-     ]] transmitting data and/or signals between the host application and the  
12 client application and/or between the client application in the host application on the  
13 ~~transmission path~~ data bus along the opened communication connection.

1                    8. (currently amended): The method according to Claim 7, wherein  
2                    ~~characterized in that~~  
3                    the arbitration information is transmitted as an arbitration block, an arbitration  
4 block having arbitration data which includes information about the length of the predetermined  
5 time interval or about the extent of the predetermined data volume for the subsequent data  
6 transmission.

1                    9. (currently amended): The method according to Claim 8, wherein  
2                    ~~characterized in that~~  
3                    the arbitration block has activity data which includes information about the  
4 current state of the transmission path, from which it may be concluded whether the transmission  
5 path is currently being used for data transmission.

1                    10. (currently amended): The method according to Claim 7, wherein  
2                    ~~characterized in that,~~  
3                    in the event of an access wish of a host application to the transmission path, the  
4 following steps are performed:  
5                    [[-     ]] the master application interface module assigned to the host application  
6 accepts the arbitration block present on the transmission path,  
7                    [[-     ]] reads out the activity data,  
8                    [[-     ]] checks, on the basis of the activity data, whether the transmission path is  
9 currently free for data transmission,  
10                    [[-     ]] writes, if the transmission path is free, activity data in the arbitration  
11 block which indicates use of the transmission path by the host application, and

12                    [[-     ]] transfers the arbitration block to the bus control module via the  
13 transmission path;

14                    [[-     ]] upon which the bus control module reserves the transmission path for  
15 the access by the host application.

1                    11. (currently amended): The method according to Claim 10, wherein  
2                    ~~characterized in that,~~  
3                    after termination of a data transmission, the activity data in the arbitration block is  
4 reset by the master application interface module and the transmission path is thus released again.